

REMARKS

Claims 1-26 were pending in the present application. Claims 1, 3, 9, 12, 14, 16, and 21-23 have been amended as set forth above. Claims 2, 5, 10-11, 15, 18, and 20 have been cancelled without prejudice or disclaimer to the subject matter therein. It is respectfully submitted that the pending claims define allowable subject matter.

In the outstanding Office Action, the drawings are objected to under 37 C.F.R. 1.83 (a) as not showing every feature of the invention specified in the claims. The specification is objected to under 35 U.S.C. §112, first paragraph, as failing to provide an enabling disclosure and failing to support the invention as it is now claimed. Claims 1-4 and 6-26 are rejected under 35 U.S.C. §112, first paragraph, for the reasons set forth in the objection to the specification. Claims 1-4 and 6-26 are rejected under 35 U.S.C. §103 as being unpatentable over Baptist (6259765 PCT published 12/98). In addition to the arguments already set forth during earlier prosecution of the present application, the Applicant respectfully traverses the foregoing rejections and objections for the reasons set forth hereafter.

The claims have been amended as set forth above to overcome the rejections under 37 C.F.R. 1.83(a) and 35 U.S.C. §112. Additionally, the Applicants respectfully submit that the claim amendments do not raise new issues that would require further consideration and/or search because the claims are substantially similar to the claims originally presented, except that the claims have been amended to overcome the rejections under 37 C.F.R. 1.83(a) and 35 U.S.C. §112.

The Applicant now turns to the rejection of claims 1-26 under 35 U.S.C. §103 as being unpatentable over Baptist (6259765 PCT published 12/98). The Applicant respectfully maintains that a prima facie case of obviousness has not been established. The outstanding Office Action

only sets forth certain general teachings of Baptist in support of a general obviousness rejection of all of the pending claims. In the obviousness rejection, differences between the prior art and the claimed invention have not been identified. Also, no explanation has been provided that would serve as a motivation to the artisan to modify the prior art in a manner that would render obvious the claimed invention. Also, no discussion is provided concerning the alleged obviousness of the features of the dependent claims, for example, the Faraday cage.

Further, it is respectfully submitted that Baptist does not teach, nor suggest, the claimed invention. Baptist does not teach, nor suggest, structure or steps for creating/producing an ion collection voltage for collecting positive ions at a grid. Nor does the prior art teach or suggest the claimed cathode filament in combination with an ion collection voltage.

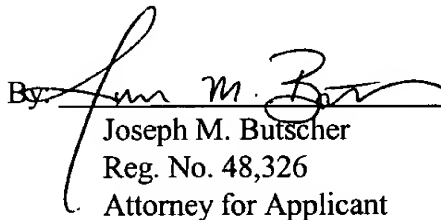
Baptist is concerned with a method for creating an electron beam using an electron cathode source with at least one microtip (not a filament) and using an extraction grid and magnetic field to help form and focus the electron beam. Baptist does not teach, nor suggest, a cathode filament or filament connection but instead describes a cathode microtip which substantially differs from a cathode filament. Baptist specifically teaches away from using a filament by stating “Furthermore, the structure of X-ray tubes with filaments does not make it possible to define any specific shape of the X-ray source, i.e. the zone of the tube from which the X-rays are emitted, in an accurate and controllable fashion.” (column 3, lines 1-4). Additionally, Baptist does not teach, nor suggest, an ion collection voltage and does not teach, nor suggest, applying a voltage in the range of 10 to 30 volts. For at least these reasons, the Applicants respectfully submit that the pending claims of the present application are not unpatentable over Baptist.

In view of the foregoing, it is respectfully submitted that the pending claims define allowable subject matter. A favorable action on the merits is respectfully requested.

Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone listed below. Please charge any additional fees or credit any overpayment to the Account No. 07-0845.

Respectfully submitted,
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Date: 11/12/03

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